

THE INSECT PEST SURVEY  
BULLETIN

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A periodical review of entomological conditions throughout the United States  
issued on the first of each month from March to December, inclusive.

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# INSECT PEST SURVEY BULLETIN

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## OUTSTANDING ENTOMOLOGICAL FEATURES IN THE UNITED STATES FOR APRIL, 1930

The serious condition in Nebraska with regard to the army cutworm, reported in the last number of the Survey Bulletin, has continued during the early part of the month. The ring-necked pheasant was found to be a heavy feeder on this species, 122 larvae having been found in the crop of a single specimen. The usual number of spring reports regarding cutworms is being received from practically all parts of the country.

Wireworms are reported as seriously damaging tobacco in Gadsden County, Florida, and sweet potatoes in parts of Mississippi.

Many reports were received from Georgia, westward through Mississippi, of June beetle damage to the foliage of pecan. White grubs are reported as very numerous in the North Central States.

Indications of serious Hessian fly trouble are reported from Missouri. This insect emerged about a week earlier than usual in Oregon.

The chinch bug remains as during the last few years at a very low ebb.

The corn ear worm is now appearing in southern Florida.

Many reports of unusual abundance of the clover leaf weevil have been received from Illinois and Missouri.

Reports of very unusual numbers of crane fly maggots attacking meadows have been received from Illinois and Missouri.

Fruit aphids appear to be moderately abundant over the New England and Middle Atlantic States but less than normally abundant in the East Central States. Over the remainder of the country these insects are reported as scarce.

The codling moth appears, from hibernation counts, to be subnormal in abundance throughout the country. In many cases this is attributed to very high winter mortality.

The fall canker worm is appearing in outbreak numbers in central California.

The first moths of the oriental fruit moth appeared during the first week in April in Illinois and the second week in April in Delaware and southern Ohio. Heavy emergence was observed during the later part of the second week and the early part of the third week of the month in Indiana.

About the middle of the month the first adults of the plum curculio were observed leaving hibernation in Delaware and a few days earlier in northern Virginia. Egg-laying was well under way during the last week in the month in Georgia. The first weevils were found in the trees in southern Illinois on April 14.

The seed corn maggot is again proving very destructive to seed pieces of potato and to snap beans in the coastal section of South Carolina. Cool weather conditions delayed germination of the seed, which is probably responsible for this trouble.

The first adults of the Colorado potato beetle were observed in the Charleston district of South Carolina on April 5. They were observed at Columbia, Mo., April 21.

A very serious outbreak of the strawberry weevil is occurring in the Chadbourn and Burgaw districts of North Carolina.

A number of insects have been noted as attacking strawberry plants in Washington State. Among these are Tyloclerum morbillosa Lec., Brachyrhinus ovatus L., Dyslobus decoratus Lec., Geoderces melanothrix Kby., Coniontis sp., and Eleodes sp.

A report of what appears to be the first collection of the squash bug in the State of Idaho was received this year. The specimen was collected in 1929.

The turnip aphid is becoming increasingly destructive in Indiana.

The juniper webworm (Dichomeris marginellus Fab.) is becoming increasingly destructive to juniper nursery stock in Lake County, Ohio.

The deodar weevil is causing considerable damage in many parts of Mississippi.

By the middle of the month the bulb flies were emerging in western Oregon.

The clover mite is attracting considerable attention in the Eastern

and North Central States by entering houses in very large numbers.

The Argentine ant is occasioning considerable alarm in many parts of Mississippi.

#### OUTSTANDING ENTOMOLOGICAL FEATURES IN CANADA FOR APRIL, 1930

The season of 1929 was characterized over the greater part of the Dominion by a cool, backward spring, followed by an exceptionally dry summer, and generally speaking the country as a whole was comparatively free from serious insect outbreaks.

Weather conditions were favorable to grasshoppers in 1929, and these insects increased markedly over a considerable part of Canada, particularly in the dry cattle-range areas of British Columbia and in sections of the Prairie Provinces. They were not abundant enough, however, to cause serious crop damage.

Moderate outbreaks of cutworms occurred in sections of New Brunswick, southern Ontario and the Prairie Provinces, but damage by these insects was not considered excessive. The estimated loss to field crops, however, in 1929, in Saskatchewan alone, due to cutworm depredations, was placed at nearly one and one-third million dollars.

Depredations by wireworms were reported from parts of Ontario, the Prairie Provinces, and British Columbia, in 1929, but severe crop damage was noted only in Saskatchewan and certain dry sections of Alberta and in the Okanagan Valley, British Columbia. The loss to grain and other field crops in Saskatchewan, due to wireworms, was estimated at approximately three and one-sixth million dollars.

In Ontario, during 1929, the European corn borer, Pyrausta nubilalis Hbn., in general, again showed a decrease in the area in which compulsory control is being enforced, clear decreases being determined in sixteen counties. In the counties of Essex and Kent, formerly the most severely affected, although the stalk infestation was lower, the number of borers was probably about the same as in the previous year. The infestation increased somewhat in eight other counties. In five counties outside the control area the infestation was low, the number of borers remaining about the same as in 1928. An interesting point noted was the apparent quite rapid increase of the borer on Manitoulin Island. In Quebec, although not carefully surveyed, the infestation on the average is considered to have remained about the same as in 1928. In New Brunswick the infestation is still present. No sign of the borer was found in the localities infested in 1928, but it was discovered in very small numbers in other localities in Sunbury, Queens, and Charlotte Counties. The borer also was discovered in very small numbers for the first time in Nova Scotia, in the counties of Kings, Annapolis, Digby, and Yarmouth, and from the stage of development is presumed to be of



the two-generation strain of this species.

The Colorado potato beetle, Leptinotarsa decemlineata Say, was about normal in eastern Canada, during 1929, and less abundant and destructive than usual throughout the West. In British Columbia it occurs only in the extreme southeastern corner of the Province.

The dry season of 1929 engendered increased crop damage by the wheat stem sawfly, Cephus cinctus Nort., in sections of the Prairie Provinces. The loss to wheat in Saskatchewan in 1929, due to the sawfly, was estimated at five and one-half million dollars. The area of greatest damage occurred over the south-central part of the Province. The sawfly also caused noticeable damage in western Manitoba, and in certain localized areas in Alberta. Given favorable weather conditions a further increase of the insect in 1930 is anticipated.

An infestation of the pea weevil, Mylabris pisorum L., was discovered for the first time on Vancouver Island, British Columbia, late in 1929. Efforts are being made to eradicate the insect which so far has not been a pest in the Province.

Slight infestations of the Mexican bean beetle, Epilachna corrupta Muls., were found in three localities in southern Ontario during 1929. This species was first discovered in Ontario, in 1927, but the original infestations disappeared, and it appears extremely likely that climatic conditions will prevent the insect from becoming a pest in Canada.

During 1929 the plum curculio, Conotrachelus nenuphar Hbst., was a serious pest in fruit-growing sections of eastern Canada. The apple curculio, Tachypterellus quadrigibbus Say, was particularly abundant in orchards of southern Quebec, and occurred for the first time as a fruit pest in British Columbia, causing severe damage to pears in the Salmon Arm district.

The codling moth, Carpocapsa pomonella L., appeared to be less than normally abundant in eastern sections of Canada. In the West, this species is increasing in the Okanagan Valley and on Vancouver Island, British Columbia.

The oriental peach moth, Laspeyresia molesta Busck, increased markedly in southern Ontario and caused serious loss in the Niagara district, particularly east of St. Catharines.

Budmoths were less abundant in Nova Scotia orchards than for some years past, but appear to be on the increase in southern sections of New Brunswick, Quebec, and Ontario.

The apple and thorn skeletonizer, Hemerophila pariana Clerck, was recorded for the first time in Ontario, during 1929, in neglected apple orchards of the Niagara peninsula.

The oyster-shell scale, Lepidosaphes ulmi L., appears to be on the increase in sections of New Brunswick and southern Ontario, and is

becoming a serious pest in the interior of British Columbia.

Spider mites were prevalent in many parts of Canada, during 1929. The European red mite, Paratetranychus pilosus C. & F., for the first time was an important pest in orchards of southern New Brunswick, and was abundant and injurious in the Niagara district, Ontario. Red spiders also heavily infested small fruits and various other plants in sections of Ontario and the Prairie Provinces, and fruit trees in the Okanagan Valley, British Columbia.

An outbreak of spruce budworm, Cacoecia fumiferana Clem., on balsam, in the Westree district, north of the Georgian Bay, Ontario, which apparently originated around Meteor Lake, is slowly extending westward. The outbreak of this species on Vancouver Island, British Columbia, north of Victoria, is subsiding.

The fir sawfly, Neodiprion abietis Harr., was found infesting a considerable area of balsam forest in the Sault Ste. Marie district, Ontario, during 1929. An outbreak of this insect in Manitoba has been much reduced by parasites. An incipient outbreak of a species of sawfly, of the same genus as the above, has been discovered affecting jack-pine over a considerable area in the Biscotasing district, Ontario. Severe local outbreaks of the latter insect also were found in Quebec.

The satin moth, Stilpnotia salicis L., which was first recorded in Canada at New Westminster, British Columbia, in 1920, now occurs throughout the Lower Fraser Valley and on the east coast of Vancouver Island.

The European beech bark louse, Cryptococcus fagi Baerns., which occurs widely in Prince Edward Island and Nova Scotia, is spreading northward in eastern New Brunswick from the infested area in Albert and Westmoreland Counties. It was first discovered in New Brunswick in 1927.

The brown-tail moth, Nygmia phaeorrhoea Don., has been practically eliminated from Canada. The only evidence of the pest found since 1927, in the previously infested areas in the Maritime Provinces, was a male moth captured at Fredericton, New Brunswick, in July, 1929.

Infestations of the gipsy moth, Porthetria dispar L., discovered in southern Quebec in 1924, in Stanstead and St. Johns Counties, appear to have been completely stamped out by the vigorous combative measures adopted. Extensive scouting, continued in 1929, failed to reveal any evidences of the pest.

## GENERAL FEEDERS

## GRASSHOPPERS (Acrididae)

- Florida J. R. Watson (April 26): Grasshoppers are moderately abundant.
- South Dakota H. C. Severin and A. L. Ford (April 22): Grasshopper eggs are abundant west of the Missouri River; also in north-eastern South Dakota. Trouble is expected in alfalfa-growing districts especially.
- Utah G. F. Knowlton (March 29): A few half-grown grasshoppers were observed at Snowville today. These are the first I have encountered this spring. (April 23): Grasshopper nymphs which were in the first and second instar were collected west of Corinne, and at Snowville. Very few young grasshoppers have been observed up to the present time. (April 24): A few first and second instar nymphs of grasshoppers were observed in sugar-beet fields at Tremonton.
- G. F. Knowlton (April 12): An adult of the grasshopper Hippiscus corallipes Hald. was collected at Skull Valley April 12, and nearly mature nymphs were collected at Grantsville, April 3, and at Cedar Spring on March 29. This form overwinters in the nymphal condition and is frequently present in damaging numbers in Tooele County.
- Colorado C. P. Gillette (April 22): The grasshopper Anabrus simplex Hald. is scarce in Routt County.

## CUTWORMS (Noctuidae)

- North Carolina C. H. Brannon (April 25): Cutworms are causing severe damage to tobacco and truck crops all over eastern North Carolina. In New Hanover County cutworms have caused considerable damage to lettuce by eating into the head.
- Florida J. R. Watson (April 26): Cutworms are moderately abundant.
- Indiana J. J. Davis (April 28): Reports of cutworms are absent except for one outbreak reported in a greenhouse. The variegated cutworm (Lycophotia margaritosa Haw., var. saucia Hbn.) reported damaging foliage of tomato and flowers of calla and carnation in a greenhouse at Decatur March 31.
- South Dakota H. C. Severin and A. L. Ford (April 22): Cutworms are abundant in eastern South Dakota.
- Missouri L. Haseman and P. H. Johnson (April 21): Two or three species of cutworms seem to be unusually abundant. As yet no damage has been reported.



K. C. Sullivan (April 23): Cutworms are reported at Anderson in cornfields following alfalfa.

Nebraska

M. H. Swenk (April 17): Cutworms (Euxoa auxilaris Grote) are moderately abundant on wheat in southeastern Nebraska. This species was still abundant in Scotts Bluff County during early April. A ring-necked pheasant that flew against the windshield of an auto near Morrill, Scotts Bluff County, on April 8, contained 122 army cutworms in its crop.

Kansas

R. L. Parker (April 21): The pale western cutworm (Porosagrotis orthogonia Morr.) is reported as very abundant on wheat in western Kansas. (April 24): The clay-backed cutworm (Feltia gladiaria Morr.) is abundant in the vicinities of Grinnell, Oakley, and Greenfield.

Mississippi

R. W. Harned and assistants (April): Cutworms are quite generally reported as being scarce throughout the State, but Agrotis ypsilon Rott. is moderately abundant at Cleveland.

Colorado

C. P. Gillette (April 22): A cutworm is reported as moderately abundant in Routt and Sedgwick Counties.

Idaho

C. Wakeland (April 22): The usual reports have been received of serious injury by cutworms to gardens in several parts of the State.

Oregon

D. C. Mote (April 21): Cutworms are very abundant on garden plants, young strawberry plants, and flowers. L. P. Rockwood reports that it is still too early to find readily Euxoa messoria Harr. and Euxoa septentrionalis Walk., garden cutworms of the true cutting type, which wintered as eggs and may have survived the winter better.

L. P. Rockwood (April 15): Cutworms, Agrotis c-nigrum L. and Neuria procincta Grote, are not so numerous as usual at Forest Grove, perhaps because of unusually severe cold in January; Cirphis roseola Sm. is about the same as usual.

Washington

Wm. W. Baker (April 3): Cutworms are destroying a large number of new plants in both old and new sod at Grand Mound and Rochester, few occurring in old plantings but fields plowed last fall and replanted this spring are as seriously affected as fields planted on new land.

A NYMPHALID BUTTERFLY (Euphydryas taylori Edw.)

Washington

Wm. W. Baker (March 21-April 10): What appears to be this species was observed to be very numerous in the prairie district around Grand Mound, the caterpillars literally

covering the ground in places. Very little evidence of feeding was found on March 21 but on April 2 some feeding was noticed on buckhorn plantain. Pupae also were found on the latter date. The first butterflies were noticed on April 10.

#### WIREWORMS (Elateridae)

- Vermont Harold L. Bailey (April 18): Wireworms are moderately abundant.
- Florida F. S. Chamberlin (April 23): Wireworms have necessitated the resetting of tobacco in some fields in Gadsden County.
- Missouri L. Haseman and Paul H. Johnson (April 21): Wireworms are reported scarce at Columbia. Species not determined but less abundant than usual.
- Nebraska M. H. Swenk (April 17): Wireworms (Melanotus fissilis Say) are moderately abundant in eastern Nebraska.
- Mississippi K. L. Cockerham (April 7): Eight and six-tenths per cent of the adults of Heteroderes laurentii Guer. which were placed in hibernating cages last fall were alive on April 7 when the cages were examined and taken up. These beetles were placed on the surface of the ground in trash, potato vines, etc., and enclosed in screen-wire cages. During the winter the lowest temperature recorded here was 18° F.
- R. W. Harned and assistants (April): Wireworms are moderately abundant in many parts of the State, being often recorded as injuring sweet potatoes.
- Idaho C. Wakeland (April 22): Wireworms are reported in southwestern Idaho. Adults emerged in early March and Mr. Lanchester, of the U. S. Bureau of Entomology, reports them as very abundant.

#### WHITE GRUBS (Phyllophaga spp.)

- Georgia J. B. Gill (April 25): May beetles have been devouring the shoots and foliage of pecan trees at Albany and Americus. No extensive damage has been observed in pecan orchards.
- Ohio J. S. Houser (April 16): White grubs are very abundant.
- Indiana J. J. Davis (April 28): Reports continue to indicate the probability of damage by white grubs in the northwestern quarter of the State.
- Wisconsin E. L. Chambers (April 25): White grubs will be very abundant, as indicated by beetle flight last year.

- Minnesota L. Uptographt (April 23): White grubs are very abundant in Houston County.
- Missouri L. Haseman and P. H. Johnson (April 21): White grubs are reported scarce. Adults are just beginning to fly. Some damage has been noted at Columbia.
- Alabama J. M. Robinson (April 25): On April 12 we had a letter from S. M. Day, County Agent, Alexander City, stating that the adult brown June beetles (Phyllophaga rugosa Melsh. and Phyllophaga tristis Fab.) were destroying young pecan foliage, rugosa being more abundant than tristis. Phyllophaga rugosa was also reported as active on pecan foliage at Livingston.
- Mississippi R. W. Harned (April 22): J. M. Langston reports that May beetles began flying to lights at A. & M. College on March 14, and have continued in increasing numbers. They have attracted attention over the State. Serious injury to pecans was reported on April 17 from Sallis, where 24 males and 6 females of Phyllophaga praetermissa Horn were collected from one small Stuart pecan tree. A correspondent at Carriere wrote as follows on April 15: "They are camping nightly in front of my home and destroying all evidence of new growth on the trees." Specimens that accompanied this complaint were identified by J. M. Langston as Phyllophaga arkansana Schaef.
- R. W. Harned and assistants (April): These insects were first observed in large numbers on March 27 when they were flying around lights in George, Green, and Perry Counties. Since that date they have been quite prevalent throughout the State, being particularly abundant on pecan trees. The following species were observed: Phyllophaga hirticula Knoch, fosteri Burm., luctuosa Horn, micans Knoch, and ulkei Sm.
- JAPANESE BEETLE (Popillia japonica Newm.)
- Connecticut W. E. Britton (April 24): The Japanese beetle is moderately abundant only in certain of the infested areas.
- A JUNE BEETLE (Paracotalpa grandicollis Hald.)
- Utah G. F. Knowlton (April 10): Adult June beetles are very abundant west of Garland, and a few of the same species were collected at Snowville and Curlew Valley, all in Box Elder County.



CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

- Ohio J. S. Houser (April 16): The Hessian fly is scarce in southwestern Ohio.
- Indiana J. J. Davis (April 28): The Hessian fly is moderately abundant in southeastern Indiana.
- Missouri L. Haseman and P. H. Johnson (April 21): The Hessian fly is reported from Columbia and the State of Missouri as a whole as being very abundant. Such reports indicate a serious outbreak. In central Missouri flies actively oviposited April 10-22. Damage from the spring brood of maggots is not yet in evidence.
- Nebraska M. H. Swenk (April 15): The Hessian fly has been emerging since April 1 and at the present writing the bulk of the flies of the first spring brood seem to have emerged. A Gage County correspondent reported on April 7 that the fly puparia in his field were mostly empty on that date, whereas on March 17 emergence had not started. (April 17): The Hessian fly is moderately abundant in the southeastern part of the State.
- Kansas R. L. Parker (April 24): The Hessian fly produced eggs April 9.
- Oregon Max M. Reeher (April 15): The first spring brood emerged March 31 at Forest Grove. This is about a week earlier than the average for the first spring emergence.

CHINCH BUG (Blissus leucopterus Say)

- Missouri L. Haseman and P. H. Johnson (April 21): The chinch bug is scarce at Columbia. Still in winter hiding April 10.
- Kansas R. L. Parker (April 21): The chinch bug is reported scarce.

WHEAT STRAW WORM (Harmolita grandis Riley)

- Kansas R. L. Parker (April 24): The wheat straw worm is just going into the pupal stage.

WHEAT THRIPS (Frankliniella tritici Fitch)

- Kansas R. L. Parker (April 24): Thrips are doing considerable damage to wheat in the vicinity of Ellsworth.



CLOVER MITE (Bryobia praetiosa Koch)

Kansas R. L. Parker (April 24): In the vicinity of Haskell County, south of Garden City, there is a mite causing much damage to the wheat. This mite has been sent to Washington for determination. (Det. by H. E. Ewing)

CORN

CORN FLEA BEETLE (Chaetocnema pulicaria Melsh.)

North Carolina C. H. Brannon (April 20): Specimens were sent in from the county agent of Robeson County with the report of considerable damage to corn.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

North Carolina W. A. Thomas (April 12): A very serious local outbreak of the potato flea beetle in the Chadbourn district has occurred within the past week. Areas of young corn, just well up, have been seriously injured. As many as a dozen specimens were observed feeding on a single leaf, leaving only skeletons of corn plants in their wake.

CORN EAR WORM (Heliothis obsoleta Fab.)

Florida J. R. Watson (April 26): The corn ear worm is reported moderately abundant over the southern part of the State.

ALFALFA AND CLOVER

ALFALFA WEEVIL (Phytonomus posticus Gyll.)

Nevada G. G. Schweis (April 18): The alfalfa weevil is reported as very abundant at Reno. Oviposition to date is greater than normal.

Colorado C. P. Gillette (April 22): The alfalfa weevil is moderately abundant in parts of Delta, Gunnison, Mesa, Montrose, Garfield, Moffelt, and Rio Blanco Counties.

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

Indiana J. J. Davis (April 28): The clover leaf weevil is reported damaging new clover field at Kempton April 24.

Illinois S. C. Chandler (April 15): Several reports of unusual abundance of the clover leaf weevil have been received from the central and south-central counties.

Missouri L. Haseman and P. H. Johnson (April 21): The clover leaf weevil is very abundant at Columbia. Most of the weevils were full-fed and had begun to spin cocoons April 15.

ALFALFA CATERPILLAR (Eurymus eurytheme Boisd.)

Utah G. F. Knowlton (April 28): A few alfalfa butterflies are present in the fields in northern Utah.

CLOVER ROOT BORER (Hylastinus obscurus Marsham)

Oregon L. P. Rockwood (April 15): Adults were flying on March 28 when the maximum temperature reached 82° F. This is the earliest date ever recorded for the flight of this species at Forest Grove.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

Oregon D. C. Mote (March 28): B. G. Thompson reports Diabrotica soror Lec. present in young clover fields in considerable numbers.

T. R. Chamberlin (April 15): Adults are not so numerous as usual in Washington County and have not damaged the stands of seedling clover appreciably.

PEA APHID (Illinoia pisi Kalt.)

Kansas R. L. Parker (April 24): The pea aphid is appearing in large enough numbers to cause an outbreak under favorable weather conditions.

Utah G. F. Knowlton (April 28): The pea aphid is still very scarce on alfalfa and peas in Davis County.

Nevada G. G. Schweis (April 18): Alfalfa aphids are reported as very abundant at Reno and Minden. Severe injury in small acreages has occurred in these two outbreaks.

Oregon L. P. Rockwood (April 15): Very little vetch was seeded early enough in the fall of 1929 to become infested in the fall. In one young orchard where vetch was seeded in August 1929, much vetch was killed by a heavy aphid infestation in October and November. In March and early April, 1930, Illinoia pisi was making a slow start on this vetch, apparently owing to the fact that very few aphids survived the winter. There were from 25 to 100 aphids per sweep here April 11. Coccinellid adults of several species averaged from 10 to 100 per sweep. Spiders were very numerous. Alfalfa fields are lightly infested, 30 to 100 per sweep on April 5. Coccinellids and spiders were numerous on alfalfa also. Stem mothers of the aphid were scarce on Scotch broom in Clackamas County in late

March. Sexual forms were scarce on this host last fall in most places and the host plants were in many cases badly injured by cold during the winter.

CLOVER SEED CHALCID (Bruchophagus funebris Howard)

Colorado

C. P. Gillette (April 22): The clover seed chalcid is moderately abundant in alfalfa districts of the State.

GRASS

CRANE FLIES (Tipulidae)

Illinois

S. C. Chandler (April 15): A number of records of tipulid larvae have been submitted with the statement that they were causing injury. It has been impossible to verify this statement in any case.

Missouri

L. Haseman (April 9): We are just now experiencing what appears to be a very extensive outbreak of one of the medium-sized crane flies, specimens of the larvae of which I am sending to Dr. Alexander for identification. The outbreak seems to extend particularly along the northern side of the Missouri River and is heaviest in and surrounding the village of Centralia, just north of Columbia. We are getting a great many letters and samples every day. Undoubtedly this is an entirely different species from the western forms, but they are appearing in pastures and meadows and other crops in enormous numbers and some farmers are complaining that timothy meadows are being injured severely. This is the first heavy outbreak we have ever had and from my own observations to date I am not sure just how much damage this species is doing, if in fact it is actually injuring crops at all. It certainly is abundant enough to do serious damage if it has the habit of attacking roots and crowns of grasses and other crops.

L. Haseman and P. H. Johnson (April 23): An undetermined species of crane fly is very abundant in central Missouri. Some report as many as 100 to a square foot of ground. Some farmers claim that they have injured grass but in breeding cages. they do not seem to eat the roots of grass. They are still in the larval stage.

FRUIT INSECTS

APPLE

APHIDS (Aphidae)

- Connecticut      W. E. Britton (April 24): Fruit aphids are moderately abundant.
- New York      Weekly News Letter, N. Y. State Coll. Agr. (April):  
During the first week in April aphids were observed in both the Hudson River Valley and Lake fruit belts, and by the middle of the month they were quite generally observed although they do not appear to be so numerous as last year, being mostly the apple grain aphid and the apple aphid. There were very few rosy aphids observed, although in Ulster County they were very conspicuous by end of month.
- Virginia      W. J. Schoene (April 21): All three species of aphids, now found in apple orchards, are present in very small numbers this year. It is assumed that this scarcity of aphids is due to an early freeze which destroyed the foliage before the overwintering eggs were deposited.
- Indiana      J. J. Davis (March 31): Apple aphids (apparently both Rhopalosiphum prunifoliae and Aphis pomi) were hatching March 10 at Mitchell according to Steiner's observations. Apparently some had hatched the 8th and 9th. Buds were not showing green at the time and for about a week (at least until the 15th) many of the young starved to death.
- Illinois      S. C. Chandler (April 15): There is a scarcity of fruit aphids but all three species were found on apple in southern Illinois.
- Michigan      R. H. Pettit (April): Apple aphids are hatching everywhere.
- Missouri      L. Haseman and P. H. Johnson (April 22): The fruit aphids are reported as moderately abundant at Columbia. Not increasing seriously from April 15 to April 22.
- Utah      G. F. Knowlton (April 19): The fruit aphids are scarce on apple and plum in Box Elder and Cache Counties.

APPLE APHID (Aphis pomi DeG.)

- New Hampshire      P. R. Lowry (April 15): The green apple aphid eggs seem about normal in abundance in the southern part of the State. No hatching yet.
- Vermont      Harold L. Bailey (April 18): Moderately abundant in general.



Massachusetts A. I. Bourne (April 21): At the present time apple plant lice have only recently begun to appear on the buds. These began hatching from April 8 to 12, depending on the section of the State. As a rule they are found generally present but not very abundant in any orchard. This is in marked contrast to last year's experience when they hatched in large numbers and threatened to be a serious problem to the growers during the early season.

Connecticut Neely Turner (April 21): The initial infestation is not sufficiently large to cause an outbreak unless weather conditions are very favorable. Syrphid-fly eggs are deposited on buds in about the average number.

Georgia C. H. Alden (April 21): There are few green aphids at Cornelia.

Ohio J. S. Houser (April 16): Green aphids have not hatched in northern Ohio.

Idaho C. Wakeland (April 22): Aphis pomi is reported at Lewiston. Stem mothers were feeding on apple buds March 29.

Utah G. F. Knowlton (April 19): Apple aphids are rather scarce in Cache and Box Elder Counties.

Oregon D. C. Mote (March 28): Reported in Oaco orchards at Monroe hatching and attacking the newly opened buds on grafted trees. Last fall many eggs of the green apple aphid in the same location hatched, during periods of high temperatures late in the fall. In examining some of the twigs many dead bodies of aphids were found stuck to the twigs, apparently winter killed.

ROSY APPLE APHID (Anuraphis roseus Bak.)

Connecticut Neely Turner (April 21): The initial infestation of the rosy apple aphid is not sufficiently large to cause an outbreak unless weather conditions are very favorable.

New York Weekly News Letter, N. Y. State Coll. Agr. (April): The rosy apple aphid was observed hatching in Orange County on April 9. By the end of the month this species seemed to be more numerous than last year in Orange, Ulster, and Columbia Counties, while over the rest of the State they were very scarce.

Delaware L. A. Stearns (April 10): The rosy apple aphid is moderately abundant. Apples are in the prepink stage.

Ohio J. S. Houser (April 16): Rosy aphids have not hatched in northern Ohio.

Missouri L. Haseman and P. H. Johnson (April 21): A few colonies of the rosy apple aphid are curling leaves at Columbia.

Oregon D. C. Mote (April 21): The rosy aphid infestation is much lighter than usual in the Willamette Valley.

APPLE GRAIN APHID (Rhopalosiphum prunifoliae Fitch)

Pennsylvania T. L. Guyton (April 15): The fruit aphid Rhopalosiphum prunifoliae Fitch is very abundant at Harrisburg.

Indiana J. J. Davis (April 28): Aphids, mostly the apple-grain aphid, are moderately abundant.

Ohio J. S. Houser (April 16): Apple grain aphids are moderately abundant throughout the State.

Missouri L. Haseman and P. H. Johnson (April 23): Present, though enemies and weather conditions apparently are keeping them under control.

CODLING MOTH (Carpocapsa pomonella L.)

Delaware L. A. Stearns (April 3): But 0.5 per cent of overwintered larvae have transformed in insectary and outside cages; apples in late, delayed dormant condition. (April 12): Four per cent of overwintered larvae pupated on April 12. Apples are in prepink stage.

Indiana J. J. Davis (April 28): The codling moth is moderately abundant throughout the apple belt.

Missouri L. Haseman and P. H. Johnson (April 21): The codling moth at New Franklin suffered 76 per cent winter mortality. Of living larvae 14 per cent pupated on April 8. One moth was taken in an orchard at Columbia April 7 and two on April 15. None has been taken since April 23 either in orchards or in breeding cages.

K. C. Sullivan (April 23): The codling moth is reported as having suffered heavy mortality during the winter. Indications are that emergence will be nearly normal. A few adults have already emerged.

Nebraska M. H. Swenk (April 17): The codling moth is moderately abundant in southeastern Nebraska.

Kansas R. L. Parker (April 24): The codling moth is in its usual abundance in south-central Kansas.

Nevada G. G. Schweis (April 18): The codling moth is reported as moderately abundant at Reno. No observation on number of eggs laid.

Idaho C. Wakeland (April 22): Codling moth pupae were collected on the south side of trees, March 29, at Lewiston. Heavy mortality of larvae above snow line was apparent in examination under bark in both northern and southern Idaho. Most of those below snow line survived the winter.

Utah G. F. Knowlton (April 19): The codling moth is moderately abundant in northern Utah; some larvae pupating.

Oregon D. C. Mote (April 21): Adults are emerging in the Willamette Valley.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

New Hampshire P. R. Lowry (April 15): Eggs of the eastern tent caterpillar at Durham seem less common than usual. No hatching yet.

Massachusetts A. I. Bourne (April 21): Tent caterpillars began hatching about April 12. They are being found generally quite scarce, particularly in the orchards. The insect is in much smaller numbers than in 1929.

Connecticut M. P. Zappe (April 21): Tent caterpillars are very scarce where they were quite plentiful last year.

W. E. Britton (April 24): Eastern tent caterpillars are scarce, no nests having been seen yet.

Virginia P. J. Chapman (April 22): The eastern <sup>tent</sup>caterpillar is moderately abundant at Norfolk though probably not so bad as last year.

Alabama J. M. Robinson (April 21): The tent caterpillar is reported in Lee County.

Mississippi R. W. Harned (April 22): Apple tree tent caterpillars were received from Bailey, on March 27, where they were infesting cherry and plum trees; from Lake, on March 31, where they were infesting plum and peach trees; and from Ethel, on April 3, where they were infesting plum trees.

J. P. Kislanko (April 21): The tent caterpillar (apparently Malacosoma americana Fab.) is scarce this year in the vicinity of Stone County. Only one colony was observed on a wild plum tree near Wiggins. This colony was brought into the laboratory where they commenced pupating on April 16.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Washington Wm. J. Baker (April 13): Fairly numerous at Puyallup but none found at Puget.



California E. O. Essig (April 21): The forest tent caterpillar was found on apple trees in many localities in Marin and Sonoma Counties between April 1 and 15.

WESTERN TENT CATERPILLAR (Malacosoma pluvialis Dyar)

Washington Wm. W. Baker (April 13): Very numerous on fruit trees at Puget; very few at Puyallup. Apparently some disease or parasite decimated the numbers of this species last year so that very few eggs were laid on the alder, which is their preferred host.

A TENT CATERPILLAR (Malacosoma sp.)

Oregon D. C. Mote (April 21): B. G. Thompson reports tent caterpillars as very numerous.

CASE BEARERS (Coleophora spp.)

New York Weekly News Letter, N. Y. State Coll. Agr. (April): These insects were observed during the third week in April in the Hudson River Valley and the Lake region. Both species were observed during the first week in the month in Niagara County.

SPRING CANCKER WORM (Paleacrita vernata Peck)

North Dakota J. A. Munro (April 25): On a recent trip to Mandan and Bismarck, April 22 and 23, I found a few female moths of the spring cancker worm. I did not, however, find egg bands on the twigs.

Missouri L. Haseman and P. H. Johnson (April 22): The spring canker worm is one-half grown and has done serious damage to a few young apple trees.

EYE-SPOTTED BUDMOTH (Spilonota ocellana Schiff.)

New York Weekly News Letter, N. Y. State Coll. Agr. (April): During the first week in the month budmoth larvae were found in Niagara County and during the third week they were observed in the southern Hudson River Valley.

Oregon D. C. Mote (April 21): This insect is being found in several localities.

APPLE TWIG MINER (Marmara elotella Busck)

Rhode Island A. E. Stene (April 8): Specimens of apple twigs having something the matter with the bark have been received. No insect has been found connected with the damage but it looks



very much like the tunneling of some small bark borer.  
(Det. by C. Heinrich as Marmara sp., presumably elotella  
Busck.)

FRUIT TREE LEAF BEETLE (Syneta albida Lec.)

Oregon

D. C. Mote (April 21): B. G. Thompson reports Syneta  
leaf beetles damaging new grafts in an apple orchard.

FRUIT TREE LEAF ROLLER (Archips argyrospila Walk.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (April):  
Present indications are that the leaf roller will be  
unusually abundant in both the Hudson River Valley and  
the Lake region. Egg masses are very numerous.

LEAFHOPPERS (Cicadellidae)

Missouri

L. Haseman and P. H. Johnson (April 23): The apple leaf-  
hoppers were reported from Columbia on April 1 abundant and  
on wing but by April 23 weather was cool and leafhoppers  
were scarce. They are no more abundant this spring than usual.

Mississippi

R. W. Harned and assistants (April): Apple leafhoppers  
are not so abundant as usual in the northern and central  
counties.

TARNISHED PLANT BUG (Lygus pratensis L.)

New York

Weekly News Letter, N. Y. State Coll. Agr. (April 21):  
Ulster County (Wm. Clark) - Tarnished plant bugs are busy  
in many orchards.

Washington

E. J. Newcomer (April 21): This insect was extremely  
abundant during March and early April, in some cases feeding  
on fruit buds of pear and apple to the extent that most of  
the buds cropped off without blooming.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Connecticut

Philip Garman (April 24): Eggs less abundant in most  
orchards.

New York

Weekly News Letter, N. Y. State Coll. Agr. (April 21):  
Ulster County (Wm. Clark) - Red mite began hatching early  
in the week and can be found in most orchards. Clinton  
County (A. B. Burrell) - Red mite eggs are present in small  
numbers probably below average.

A LACEBUG (Corythucha sp.)

Oregon

D. C. Mote and B. G. Thompson (April 21): A severe

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infestation of the apple lacebug near Lebanon April 7. Over 100 bugs to a bud cluster. Leaf and fruit buds severely injured. Only that part of orchard next to Douglas fir forest with rather thick undergrowth infested. Apparently overwintering adults came from forest. Bugs are mating and many on the wing spreading to near-by rows.

BUFFALO TREEHOPPER (Ceresa bubalus Fab.)

Minnesota

A. G. Ruggles (April 17): The buffalo treehopper is reported from a few young orchards near Twin Cities, one case young trees all practically ruined.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

New Hampshire

P. R. Lowry (April 15): The San Jose scale is a rare insect in the State, but found in two orchards last month at Wilton. Moderately abundant on a few trees, but mostly scattered.

Vermont

H. L. Bailey (April 18): The San Jose scale is apparently present only in the eastern towns of Windham County, especially in Brattleboro, and in the towns of Charlotte, Ferrisburg, and Shelburne, in Chittenden County. Small, isolated infestations have been found elsewhere, but have apparently been eradicated.

Pennsylvania

T. L. Guyton (April 15): The San Jose scale is scarce at Harrisburg.

Georgia

C. H. Alden (April 21): The San Jose scale is scarce at Cornelia and moderately abundant at Thomaston.

J. B. Gill (April 25): The San Jose scale is moderately abundant on peach at Albany.

Florida

J. R. Watson (April 26): The San Jose scale is moderately abundant.

Indiana

J. J. Davis (March 31): The San Jose scale showed a winter mortality of 90 per cent at Mitchell February 19, according to counts made by Mr. Steiner. (April 28): The San Jose scale is moderately abundant where improper treatments have been made.

Ohio

J. S. Houser (April 16): The San Jose scale is scarce throughout the State.

Missouri

L. Haseman and P. H. Johnson (April 24): The San Jose scale is reported scarce in Missouri; winter gave it a very severe setback.

- Mississippi R. W. Harned and assistants (April): The San Jose scale is reported as quite generally prevalent throughout the State and very abundant throughout the northern half of the State, killing trees in some places.
- Colorado C. P. Gillette (April 22): The San Jose scale is scarce; there are some in Mesa County.
- Nevada G. G. Schweis (April 18): The San Jose scale is moderately abundant, mostly on old apple trees, showing no injury.
- Washington M. A. Yothers (March 25): Examinations of approximately 2,000 San Jose scales at each of three places in the Yakima Valley show a mortality of 23 per cent where the minimum January temperature was  $-14^{\circ}$  F., 68 per cent where it was  $-18^{\circ}$  F., and 100 per cent where it was  $-28^{\circ}$  F.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

- Ohio J. S. Houser (April 16): The oyster-shell scale is moderately abundant throughout the State.
- Indiana J. J. Davis (March 29): The oyster-shell scale is moderately abundant over the north half of the State.
- South Dakota H. C. Severin and A. L. Ford (April 22): The oyster-shell scale is always a serious pest in eastern South Dakota. This year is no exception.
- Missouri L. Haseman and P. H. Johnson (April 21): The oyster-shell scale is reported as moderately abundant at Waverly; young crawlers were observed April 15.

SCURFY SCALE (Chionaspis furfura Fitch)

- Indiana J. J. Davis (March 31): The scurfy scale is reported abundant on apples at LaPorte.

PEAR

PEAR PSYLLA (Psylla pyricola Forst.)

- New York Weekly News Letter, N. Y. State Coll. Agr. (April): The pear psylla began laying eggs in the lower Hudson River Valley on March 20, and by the first week in April egg-laying was very heavy throughout that region and fly emergence was being reported from the Lake region. By the middle of the month egg-laying was reported from the entire State. In general, the situation is not more serious than usual.



PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York      Weekly News Letter, N. Y. State Coll. Agr. (April):  
The pear thrips made its first appearance in the Lower  
Hudson Valley on April 14, an unusually warm day. Con-  
siderable damage has already been recorded.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

California      E. O. Essig (April 1): Abundant in buds of orchards not  
sprayed in fall. Some terminal buds completely killed.

PEACH

PEACH BORER (Aegeria exitiosa Say)

Vermont      H. L. Bailey (April 18): The peach borer has been noted  
in the southeastern corner of the State, which is the only  
part where peaches can be grown, but I have made no recent  
observations.

Pennsylvania      T. L. Guyton (April 15): The peach borer is scarce at  
Harrisburg.

Georgia      C. H. Alden (April 21): Nearly full grown larvae of the  
peach borer, though scarce, are found in trees at Cornelia.

J. B. Gill (April 25): The peach borer is moderately  
abundant at Albany, especially in neglected peach orchards.

Florida      J. R. Watson (April 26): The peach borer is moderately  
abundant.

Ohio      J. S. Houser (April 16): The peach borer is moderately  
abundant throughout the State.

Illinois      S. C. Chandler (April 15): There was no unusual winter  
mortality of the peach borer in southern Illinois.

Missouri      L. Haseman and P. H. Johnson (April 21): The peach borer  
is reported moderately abundant in Missouri, but not serious  
this year.

Mississippi      R. W. Harned and assistants (April): The peach borer is  
reported as very abundant in the northern third of the State  
and moderately abundant throughout the remainder of the State.

LESSER PEACH BORER (Sesia pictipes G. & R.)

Indiana      J. J. Davis (March 31): The lesser peach tree borer was  
reported very abundant in young peach trees at Angola.



ORIENTAL FRUIT MOTH (Laspeyresia molesta Busck)

A correction. The note referring to this insect in the Insect Pest Survey Bulletin, Vol. 10, No. 1, page 19, as occurring at Cape Girardeau, Mo., is erroneous. Material from this locality was determined by Dr. C. Heinrich as a species of Aegeriidae.

Connecticut

W. E. Britton (April 24): The oriental fruit moth is moderately abundant.

Delaware

L. A. Stearns (April 3): Fifty-three per cent of overwintered larvae have transformed in insectary and outside cages; peaches in from late pink to early bloom condition. (April 12): Seventy-four per cent of overwintered larvae pupated on April 12 as compared with 53 per cent on April 3. First spring-brood moths emerged April 11. Peaches in full bloom.

Georgia

O. I. Snapp (April 21): No twig injury has been observed at Fort Valley to date. The first twig injury last year was observed on April 4.

C. H. Alden (April 21): A few moths are emerging at Cornelia; there is no twig injury.

J. B. Gill (April 25): The oriental fruit moth is scarce at Albany.

Florida

J. R. Watson (April 26): The oriental fruit moth is scarce.

Ohio

J. S. Houser (April 16): The oriental fruit moth is very abundant. Adults emerged in southern Ohio about April 14.

Indiana

R. F. Sazama (April 24): In a dozen bait traps used to check the first emergence of the oriental fruit moth, the first moth was caught April 5. Heavy emergence started the 12th and continued through the 17th, during the especially hot weather we experienced at that time. Since then, cool weather has completely stopped emergence but it is expected that the remainder of the first brood will emerge over a short period of time as soon as warm weather occurs again.

J. J. Davis (March 29): At Bedford and Mitchell, 40 per cent pupated by March 19 and 75 per cent pupated by March 21. (March 31): According to Steiner's examinations 40 per cent of the overwintering worms on the ground had pupated by March 19. By March 21, 75 per cent on the ground and 60 per cent on the trunk had pupated. The season is unusually early although the cold weather the past week (last week in March) has checked development of plants and insects. (April 28): The oriental fruit moth is moderately to very abundant in the peach district.

Illinois            S. C. Chandler (April 15): The first emergence of the oriental fruit moth, from pupae, taken near Cairo took place on April 2 at time of full bloom. Examination of larvae hibernating under the tree on the ground showed that about 50 per cent had been winter killed, as compared with 75 per cent to 90 per cent on the tree.

Mississippi        R. W. Harned and assistants (April): The oriental fruit moth is reported as moderately abundant in the northern part of the State.

PLUM CURCULIO (Conotrachelus nenuphar Host.)

Vermont            H. L. Bailey (April 18): The plum curculio is moderately abundant throughout the State.

Delaware           L. A. Stearns (April 15): The first curculio emerged from hibernation at Bridgeville and Camden, April 14.

Virginia           W. J. Schoene (April 21): The plum curculio emerged this year in the central and northern sections of the State about April 12. Considerable interest has been attracted to the curculio on account of the heavy losses last year. The peaches in many districts were in full bloom ten days or two weeks ago.

Georgia            C. H. Alden (April 21): Egg-laying of the plum curculio is very abundant at Cornelia and Thomaston. Thousands of beetles were caught on jarring frames.

O. I. Snapp (April 22): The first collection of peach "drops" has just been made at Fort Valley. Of those collected from trees sprayed according to the recommended spray schedule, 10.6 per cent were infested with curculio larvae as compared with 42.7 per cent infestation for the first collection last year from the same orchard treated according to the same spray schedule. Of those collected from trees dusted according to the recommended dust schedule, 23.5 per cent were infested with curculio larvae as compared with 55 per cent infestation for the first collection last year from the same orchard treated according to the same dust schedule. From these figures a comparison can be made of the early-season curculio infestation in 1929 and 1930.

J. B. Gill (April 25): The plum curculio is moderately abundant at Albany. Not so bad as last year. Larvae were leaving dropped peaches on April 23.

O. I. Snapp (April 8): The first curculio eggs of the season were found in small peaches today. The appearance of adults from hibernation is much less than it was to this time last

year, and may indicate a lighter infestation throughout the season, although the spring has been unusually cold and rainy and this may be keeping them in hibernation later than usual. (April 21): The oldest curculio larvae are now 7 to 10 days old. We are expecting larvae to begin leaving peach drops around April 28, which is later than usual and may result in only one generation before the close of the peach season. While the appearance of adults from hibernation has been heavy during the last two weeks, the infestation is lighter than last year and may be considered a normal one.

Florida

J. R. Watson (April 26): The plum curculio is moderately abundant over the northern and central parts of the State.

Ohio

J. S. Houser (April 16): The plum curculio is moderately abundant throughout the State.

Indiana

J. J. Davis (April 28): The plum curculio is moderately abundant in localized areas.

Illinois

S. C. Chandler (April 15): Unsprayed apple trees jarred at Carbondale showed the first curculios on April 14 at the time of full bloom of apples. The first jarred from plum trees were at that date when all the petals were off the plum blossoms.

Minnesota

H. O. Putnam (April 24): The plum curculio is very abundant in Fillmore County.

Missouri

L. Haseman and P. H. Johnson (April 23): The plum curculio has not yet begun work and is not in evidence.

Mississippi

R. W. Harned and assistants (April): The plum curculio appeared during the second week in the month and is moderately abundant throughout the greater part of the State and there are reports of very abnormal abundance in the north-central counties surrounding Granada County.

SHOT-HOLE BORER (Scolytus rugulosus Ratz.)

Indiana

J. J. Davis (April 28): Following the winter injury to peach trees, the shot-hole borer is beginning to show its presence in orchards where these weakened trees occur, at least in southern Indiana, according to observations at Mitchell, April 25.

CHERRY

BLACK CHERRY APHID (Myzus cerasi Fab.)

New York

Weekly News Letter, N. Y. State Coll. Agri. (April):  
This insect was first observed in Orange County on April 1.  
During the second week in the month it was reported from  
the entire lower Hudson River Valley and in the Niagara  
district. In no section was it serious enough to occasion  
alarm.

PLUM

RUSTY PLUM APHID (Hysteroneura setariae Thos.)

Georgia

O. I. Snapp (April 11): A very heavy infestation has been  
observed in a peach orchard at Bradley. A plum orchard is  
near by.

Missouri

L. Haseman and P. H. Johnson (April 23): The rusty plum  
aphid is abundant on some plum trees at Columbia.

Mississippi

R. W. Harned (April 22): The first complaint in regard to  
the southern plum or rusty brown aphid, received at this  
office during 1930, came on March 26 from Gloster, where this  
species was reported very abundant on plum trees. Since that  
time this insect has attracted much attention in all districts  
of the State. Specimens have been received from Amite, Greene,  
Lincoln, Bolivar, Adams, Yazoo, Madison and Tippah Counties.

R. W. Harned and assistants (April): This insect is being  
reported as very abundant throughout practically all parts  
of the State.

Utah

G. F. Knowlton (April 19): Only a few plum aphids have  
been found up to the present time, in northern Utah.

MEALY PLUM APHID (Hyalopterus arundinis Fab.)

South Dakota

H. C. Severin and A. L. Ford (April 22): Mealy and rusty  
brown lice of plum always present.

California

E. O. Essig (April 21): The mealy plum aphid is very  
abundant on prunes at Stockton.

PEAR THRIPS (Taeniothrips inconsequens Uzel)

Oregon

D. C. Moté (March 28): J. Wilcox reports the prune thrips  
active.



BROWN DAY MOTH (Pseudohazis eglanterina Boisd.)

California

E. O. Essig (April 21): The brown day moth was abundant on prunes in a small area at Colusa, on April 17.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Delaware

L. A. Stearns (April 16): Overwintered adults are present in considerable numbers throughout the State; they are just becoming active; grape buds have pushed out one-fourth inch.

POSE CHAFER (Macroductylus subspinosus Fab.)

Indiana

J. J. Davis (March 31): The rose chafer has been reported abundant and destructive at Chesterton for the past three years. The crop attacked was not indicated specifically, but presumably from the letter grapes were the host.

A TREE CRICKET (Oecanthus sp.)

Kansas

R. L. Parker (April 23): Tree crickets are reported in Salina in grapes.

CURRENT AND GOOSEBERRY

IMPORTED CURRENT WORM (Pteronidea ribesii Scop.)

Missouri

L. Haseman and P. H. Johnson (April 23): The imported gooseberry worm is not yet present to cause damage.

Kansas

R. L. Parker (April 23): The imported currant sawfly is reported at Manhattan on gooseberries.

CURRENT APHID (Myzus ribis L.)

Utah

G. F. Knowlton (April 19): Currant bushes in North Logan are already noticeably damaged by the aphid, 80 per cent of the leaves being cupped and blotched with red.

GOOSEBERRY FRUIT WORM (Zophodia grossulariae Riley)

Utah

G. F. Knowlton (April 12): The first moth of the gooseberry fruit worm was observed at Bountiful, Davis County, April 12. (April 28): Moths are less abundant in Davis County than a year ago. Most of them are now dead, but a few are still present at Bountiful, Val Verde, and Woods Cross.

ENGLISH WALNUT

FALL CANCKER WORM (Alsophila pometaria Harr.)

California

E. O. Essig (April 22): The fall canker worm is abundant and injuring English walnut in an area about one mile square in Contra Costa County and is also reported from Solano County. This is apparently a canker worm year in central California.

PERSIMMON

PERSIMMON BORER (Sannina uroceriformis Walk.)

Mississippi

H. Dietrich (April 19): The persimmon borer is very abundant in a nursery row near Lucedale.

PECAN

PECAN BUDMOTH (Proteopteryx bolliana Sling.)

Georgia

J. B. Gill (April 23): The pecan budmoth is not abundant in pecan nurseries or orchards. The first-generation larvae have entered the pupal stage at this date.

PECAN LEAF CASE BEARER (Acrobasis nebulella Riley)

Georgia

J. B. Gill (April 25): The pecan leaf case bearer is not so abundant this year, but sufficiently numerous to cause considerable damage in untreated pecan orchards in southern Georgia.

Mississippi

R. W. Harned (April 22): Larvae of one of the case bearers, probably Acrobasis nebulella, were received on April 15 from Bond, where the correspondent stated that she had observed them on her pecan trees.

H. Gladney (April 16): The pecan leaf case bearer is moderately abundant at Ocean Springs.

H. Dietrich (April 19): The pecan leaf case bearer is abundant on pecans at Lucedale.

PECAN NUT CASE BEARER (Acrobasis carvae Grote)

Georgia

J. B. Gill (April 25): The larvae are now working in the tender shoots of pecan trees at Albany and other localities in southern Georgia.

PECAN CIGAR CASE BEARER (Coleophora carvaefoliella Clem.)

Georgia

J. B. Gill (April 25): The pecan cigar case bearer is quite scarce this year.

HICKORY SHUCKWORM (Laspeyresia caryana Fitch)

Georgia J. B. Gill (April 25): The adults of the pecan or hickory shuckworm have been observed frequently in pecan orchards during the past two weeks.

Mississippi J. P. Kislanko (April 21): Adults commenced to emerge from cages early in March and are still emerging. The moths in cages are most active during the middle part of the day when the sun is bright. Some adults were observed in a pecan orchard on April 9 flying freely about the tips of the pecan limbs. The day was warm and bright.

PECAN COSSID (Cossula magnifica Strecker)

Georgia J. B. Gill (April 25): The cossid borer has been observed damaging the larger limbs and trunks of pecan trees in various localities in southern Georgia.

APPLE TWIG BORER (Amphicerus bicaudatus Say)

Mississippi R. W. Harned (April 22): Injury to young pecan trees by the grape cane borer was reported from Belzoni on April 12.

A SHOT-HOLE BORER (Xyleborus pecanis Hopk.)

Georgia Oliver I. Snapp (February 25): This insect has done considerable damage to pecan trees at Kathleen.

PECAN SPITTLE BUG (Clastoptera obtusa Say)

Georgia J. B. Gill (April 20): Nymphs of the pecan spittle bug have made their appearance on pecan trees at Albany at this time.

AN APHID (Myzocallis fumipennellus Fitch)

Georgia T. L. Bissell (April 23): First aphids hatched on pecan March 28-29. The species is somewhat less abundant than normal. To date, no spotting of leaves has been observed on pecan or hickory. First adults matured April 13 and were numerous April 15.

J. B. Gill (April 25): This insect is reported moderately abundant on pecans at Albany.

Alabama J. M. Robinson (April 25): With the temperature rising to above 80 degrees for a period of eight days, the insects have emerged in rather large numbers. The winged forms of the black pecan aphid are present on pecan foliage at Auburn.



Mississippi

J. P. Kislanko (April 21): The first fundatrix collected was on April 9 on a Schley pecan tree near a stable at Wiggins. On April 16 late forms were plentiful on Schley trees near farm buildings. On this day one larva was collected from the lower side of a leaflet which showed a characteristic yellow injury.

AN APHID (Monellia costalis Fab.)

Georgia

T. L. Bissell (April 23): First aphids were found April 4 and first adults April 16 - 23. This species is rare.

AN APHID (Monellia nigropunctata Gran.)

Georgia

T. L. Bissell (April 23): First aphids hatched on pecan March 29. First adults were present April 15 and adults were common April 23.

CITRUS

CITRUS APHID (Aphis spiraecola Patch)

Florida

J. R. Watson (April 26): Aphis spiraecola has been brought under control by Empusa over all the southern part of the State.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida

J. R. Watson (April 26): The citrus whitefly is moderately abundant in all the citrus belt. It is emerging in moderate numbers, but emergence is late.

Georgia

J. B. Gill (April 25): The citrus whitefly is moderately abundant at Cairo and in southern Georgia generally. The first adults were observed on Satsuma oranges on April 9.

PURPLE SCALE (Lepidosaphes beckii Newm.)

Georgia

J. B. Gill (April 25): The purple scale is scarce at Cairo, on Satsuma orange.

Florida

The purple scale is moderately abundant over all the citrus belt.

Mississippi

R. W. Harned and assistants (April): The purple scale is moderately abundant on citrus in the southeastern part of the State.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Georgia

J. B. Gill (April 25): Infestations of the cottony-cushion scale have been found in various localities in Georgia, including Valdosta, Cairo, Cordele, and Sylvester. The Australian lady beetle has been colonized in the four localities mentioned.

TRUCK - CROP INSECTS

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Virginia

P. J. Chapman (April 22): The seed corn maggot is moderately abundant at Norfolk.

South Carolina

W. J. Reid (April 15): Injury to freshly planted seed potatoes has apparently been as general in the Charleston district as during the past two seasons, but the number of the insects has been slightly less. Freshly planted potato seed pieces were attacked by the maggots during the entire month of March and to the middle of April, by which time all larvae had pupated. The infestation was as high as 50 per cent in many fields. The insect has been found to be closely associated with seed-piece decays.

W. J. Reid (April 4): The seed corn maggot has been unusually destructive to snap beans in the Charleston district during the past three weeks. Weather conditions have delayed germination of the seed and growth of the seedlings, and these conditions have apparently favored the insect. The maggots attacked the cotyledons, plumules, and stalks of the seedlings. Beans planted in land containing considerable decaying organic matter have suffered most from the insect. In a field planted in beans immediately following a spinach crop at least 75 per cent of the seed or seedlings were attacked. In this particular field a count of a representative number of hills in different parts of the plot showed that 34 per cent of the hills were either entirely missing or the plants so seriously injured that they were dying. It is entirely possible that many other plants will die because of injury to their roots.

Missouri

L. Haseman and P. H. Johnson (April 22): Only one report has been received and that on April 22 from/Kansas City area.  
the

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Mississippi

R. W. Harned (April 22): Although the vegetable weevil has continued to attract some attention during the past month, only a few complaints have been received at this office regarding it during the month of April as compared with the large number of complaints received during March. A correspondent at Gloster reported on April 4 that the vegetable weevil was causing much injury to all kinds of garden plants. A correspondent at Durant reported on April 19 that a number of specimens were found beneath ornamental plants on her property. Serious injury to turnips at Yazoo City was reported on April 21.

SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata Fab.)

- Georgia J. B. Gill (April 25): The spotted cucumber beetle is moderately abundant at Thomasville, doing some damage to beans and corn.
- Florida J. R. Watson (April 26): The spotted cucumber beetle is moderately abundant.
- Alabama J. M. Robinson (April 21): The spotted cucumber beetle is moderately abundant at Auburn.
- Mississippi R. W. Harned and assistants (April): This insect, although reported from practically all parts of the State, is generally less abundant than usual.

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

- Mississippi R. W. Harned (April 22): Serious injury to mustard was reported from Senatobia, on March 31.

FLEA BEETLES (Halticinae)

- Alabama J. M. Robinson (April 25): Flea beetle larvae have been destroying turnip leaves at Guin.
- Mississippi R. P. Colmer (April 19): Black flea beetles are abundant on egg plants, peppers, and tomatoes around Moss Point.

NORTHERN MOLE CRICKET (Gryllotalpa hexadactyla Perty)

- Kentucky W. A. Price (April 25): Mole crickets were received at the laboratory April 5 from Powell County. A potato grower stated they destroyed 80 per cent of the tuber crop last year.
- Alabama J. M. Robinson (April 25): Mole crickets have been reported as active at Vredenburgh and at Cullman.
- Kansas R. L. Parker (April 23): Mole crickets reported at Miltonvale.

PILLBUGS (Oniscidae)

- Mississippi R. W. Harned (April 22): Pillbugs (species not definitely identified) were reported as injuring Easter lily and tomato plants at Gulfport on March 14. A correspondent at Rosedale reported on April 16 that they were causing serious injury to plants in her vegetable garden.



POTATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

- Vermont H. L. Bailey (April 18): The Colorado potato beetle will be moderately abundant throughout all districts, based on observations last summer.
- South Carolina W. J. Reid (April 21): Adults were first observed on potato plants in the Charleston district on April 5. Eggs were seen during the following week, the second week of April, and larvae appeared during the third week of April. The observations of the writer indicate that the insect is slightly more abundant than at this time last season.
- Georgia J. B. Gill (April 25): The Colorado potato beetle is moderately abundant at Thomasville, Pelham, and Albany, attacking Irish potatoes and young tomato plants.
- Minnesota Mr. Oesburg (April 23): The Colorado potato beetle is very abundant in Clay County.
- Alabama J. M. Robinson (April 21): The Colorado potato beetle is moderately abundant at Auburn.
- Mississippi R. W. Harned and assistants (April): Reports indicate that this insect is very abundant in the southeastern corner of the State and moderately abundant to scarce in the northern half.
- K. L. Cockerham (April 8): On April 8 I found the first adult Colorado potato beetle of this season.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

- Vermont H. L. Bailey (April 18): The potato leafhopper will be very abundant throughout all districts judging from observations last summer.
- Missouri L. Haseman and P. H. Johnson (April 21): The potato leafhopper is reported at Central; crop not yet up.

CABBAGE

IMPORTED CABBAGE WORM (Pieris rapae L.)

- Delaware L. A. Stearns (April 16): First adults of the cabbage butterfly observed at Wilmington.
- Missouri L. Haseman and P. H. Johnson (April 21): Imported cabbage worm reported at Columbia; butterflies abundant, not yet on cabbage.

HARLEQUIN BUG (Murgantia histrionica Hahn)

- Georgia J. B. Gill (April 25): The harlequin bug is scarce in Albany and Thomasville.
- Alabama J. M. Robinson (April 21): The harlequin bug is very abundant at Auburn.
- Mississippi R. W. Harned (April 22): The first complaint in regard to the harlequin bug received at this office during 1930 came from Crystal Springs on April 2. A correspondent at that place reported it as fairly abundant in his cabbage field. On April 7 a correspondent at Columbus reported injury to turnips and mustard.
- R. W. Harned and assistants (April): Reports from scattered localities indicate that the harlequin bug is normally abundant. It is reported as attacking onions, turnips, cabbage, and collards in Greene County.
- Alabama J. M. Robinson (April 25): The harlequin bugs have emerged in rather large numbers in the last 10 days. Eggs are being deposited.

CABBAGE APHID (Brevicoryne brassicae L.)  
TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

- Alabama O. T. Deene (March 13): In a field of about 300 acres of cabbage there was a general infestation of these aphids. A heavier infestation seemed to occur in low spots. The infestation was such as to cause dusting by the owner. Of the two aphids found, the cabbage aphid was much more prevalent than the turnip aphid.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

- New York Weekly News Letter; N.Y. State Coll. Agri. (April 28): Suffolk County (W.G. Been) - Cabbage root maggot flies are beginning to deposit eggs.

STRAWBERRY

A BUPRESTID (Chrysobothris sp.)

- Washington W. M. Baker (April 8): For the first time larvae of this species were taken in the crown of wild strawberry at Tacoma. In some places fully half the plants examined had been burrowed, but only 3 larvae were taken.
- This is the insect to which the notes on Chrysobothris pubescens Fall in the "Insect Pest Survey Bulletin, Vol. 9, No. 4, page 104 and 138, and No. 10, page 402, and Vol. 10, No. 1, page 27," refer.
- Mr. Baker stated that he has just received a paratype

from Prof. Fall and it is not pubescens. The species is probably a new species and Mr. Fisher says he will describe it as soon as he has looked over some of the other descriptions. (J. A. Hyslop.)

STRAWBERRY WEEVIL (Anthonomus signatus Say)

North Carolina W. A. Thomas (April 14): The strawberry weevil has been unusually destructive in both the Chadbourn and Burgaw districts this season, owing to the prolonged cold spring and corresponding late setting of fruit. Weevil emergence began on March 10, but there was little field activity until April 4. Since this date some fields have almost ceased blooming, owing to weevil injury.

A BEETLE (Tyloderma morbillosa Lec.)

Washington Wm. W. Baker (April 10): Adults feeding on the leaf and also the petiole; the eggs are laid in the punctures on the petiole but so far no eggs have been observed; specimens were taken while mating, however. (April 16): Eggs were obtained today from caged females in the laboratory; no opportunity for field observations today.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Washington Wm. W. Baker (April 10): Adults of this species are found to be quite numerous but very few larvae have been found, which is rather different from what we usually find at this time of the year. Adults were also reported to be very abundant in new fields close to clover sod at Vancouver, but no statements were made in regard to the numbers of larvae in the sod.

A WEEVIL (Dyslobus decoratus Lec.)

Washington Wm. W. Baker (April 11): This species is very abundant around strawberry plants set this spring in some fields at Grand Mound, particularly so in fields bordering timber and brush.

A DARKLING BEETLE (Coniontis sp.)

Washington Wm. W. Baker (April 11): Eating foliage and buds of the new and old plants at Rochester.

A FALSE WIREWORM (Elcodes sp.)

Washington Wm. W. Baker (April 11): This species has been found to eat the leaves and new buds of strawberry in both old and new plantings, at Rochester.



GREEN JUNE BEETLE (Cotinis nitida L.)

Mississippi R. W. Harned (April 22): A correspondent at Tylertown, sent to this office on April 7 several larvae with the statement that the farmers in that vicinity were finding them injuring strawberries.

A CURCULIONID (Geoderces melanothrix Kby.)

Washington Wm. W. Baker (April 11): This is the first time the writer has found this pest in numbers in strawberry fields, four and five being fairly common around new plants set out this spring, and some old plants were examined which were evidently killed or nearly killed by the grubs last season.

STRAWBERRY APHID (Aphis forbesi Weed)

Mississippi H. Gladney (April 16): Strawberry aphids are moderately abundant at Ocean Springs.

RED SPIDER (Tetranychus telarius L.)

Mississippi H. Gladney (April 16): The red spider is moderately abundant on strawberries at Ocean Springs.

ASPARAGUS

ASPARAGUS BEETLE (Crioceris asparagi L.)

Indiana J. J. Davis (March 31): The asparagus beetle has been reported as a pest at Rossville in past few years. Growers generally seem to have difficulty in handling this insect.

Oregon D. C. Mote (April 21): B. G. Thompson reports that asparagus beetles are very numerous.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Georgia C. H. Alden (April 21): A few beetles are emerging at Cornelia.

Indiana J. J. Davis (April 28): The Mexican bean beetle is moderately abundant in the southern half of Indiana.

Alabama J. M. Robinson (April 25): Inquiries are coming in for information regarding the control of the Mexican bean beetle.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Mississippi

J. P. Kislanko (April 21): The bean leaf beetle is quite abundant in the vicinity of Wiggins and Perkinston, producing rather heavy injury to foliage of bunch beans in gardens and somewhat heavier injury to cowpeas in the fields.

R. P. Colmer (April 19): Bean leaf beetles are eating large holes in snap bean foliage. Mostly young beetles are in the fields, in the eastern half of Jackson County.

CUCUMBERS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Virginia

P. J. Chapman (April 22): The first specimens of the striped cucumber beetle, though scarce, were found feeding on willow pollen April 18, at Norfolk.

Florida

J. R. Watson (April 26): The striped cucumber beetle is very abundant in the Everglades only.

Missouri

L. Haseman and P. H. Johnson (April 21): The striped cucumber beetle is not yet in evidence. One was found on fruit blossom April 13.

Alabama

J. M. Robinson (April 21): The striped cucumber beetle is scarce at Auburn.

Mississippi

R. W. Harned and assistants (April): Considerable damage is being done by this insect in the southern part of the State.

PICKLE WORM (Diaphania nitidalis Stoll)

Alabama

J. M. Robinson (April 25): Inquiries are coming in for information regarding the control of cantaloupe and pickle worms.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Mississippi

C. Hines (April 19): Squash bugs are very abundant at Yazoo City.

Idaho

C. Wakeland (April 23): The squash bug was collected at Payette, in 1929 by a student of the department. He reported it as destroying the squashes and pumpkins. This is the first record of the insect in Idaho.

TURNIPS

TURNIP APHID (Aphis pseudobrassicae Davis)

Indiana J. J. Davis (March 31): Turnip aphids are the most serious pest attacking cultivated turnips, and apparently growers are experiencing more trouble each year. One grower who sows 20 or more acres in Marion County advises that there was hardly a turnip or Sutton radish raised in his vicinity last fall because of these aphids.

Mississippi R. W. Harned and assistants (April): This insect is reported as moderately abundant in the territory surrounding Cleveland and very abundant in a district in the east-central part of the State.

GARDEN WEBWORM (Loxostege similalis Guen.)

Mississippi H. Dietrich (April 19): Webworms made their appearance on turnips at Lucedale April 14.

BEETS

BEET LEAFHOPPERS (Eutettix tenellus Baker)

Utah G. F. Knowlton and M. Janes (April 3): The beet leafhoppers are slightly more abundant around Grantsville and west than a year ago at this time. A few were collected at Low, Delle, and in Skull Valley also. (April 10): Beet leafhoppers are fairly abundant west of Kelton at the present time. (April 19): The beet leafhopper is slightly more abundant in its breeding grounds in Tooele and Box Elder Counties. (April 24): Beet leafhoppers are now present in sugar-beet fields west of Garland and a few specimens were taken at Bothwell and Tremonton. The beets are now in the two to six leaf stage, and thinning is just started.

HOP FLEA BEETLE (Psylliodes punctulata Melsh.)

Utah G. F. Knowlton (April 24): The black hop flea beetle, is abundant in beet fields at Garland, and generally present throughout Box Elder County. In a few fields they are so abundant as to hold back the development of the beets.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina C. H. Brannon (April 27): Tobacco in beds and newly set plants on the field show unusually severe damage. The cool spring has been very favorable for flea beetle damage.

J. N. Tenhet (April 19): A few complaints are coming in of tobacco flea beetles damaging young tobacco plants in the seed bed.

Mississippi

F. A. Smith (April 23): The tobacco flea beetle is scarce in Tate, De Soto, Tunica, Quitman, and LaFayette Counties.

GARDEN SLUG (Agriolimax agrestis L.)

North Carolina

J. N. Tenhet (April 18): This slug has done much damage to seed beds in the old South Carolina Bright Tobacco Belt. Infestation was more scattered than in 1929, but in many localities injury was serious.

F O R E S T   A N D   S H A D E - T R E E   I N S E C T S

PERIODICAL CICADA (Tibicina septendecim L.)

Iowa

H. E. Jaques (April 24): On April 21 nymphs of Brood IV of the periodical cicada were found in Fremont County in their burrows under logs ready for emergence, so we are sure that they will appear in that county at least.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Indiana

J. J. Davis (March 31): Bagworms were reported abundant on evergreen trees at Pershing. (April 28): Bagworm cocoons reported abundant in a young apple orchard at Burns City.

Missouri

L. Haseman and P. H. Johnson (April 24): Eggs have not yet hatched but overwintering cocoons are abundant at this time.

Delaware

L. A. Stearns (March 30): Bagworms are abundant on quinces.

WHITE-MARKED TUSSOCK MOTH (Hemerocampa leucostigma S. & A.)

Connecticut

W. E. Britton (April 24): Egg clusters are very abundant on lindens near the railroad station at Waterbury.

GIPSY MOTH (Porthetria dispar L.)

Vermont

H. L. Bailey (April 18): The gipsy moth has been found rather plentifully in towns along the Connecticut River from Springfield south to the Massachusetts line. This seems to be the chief area of infestation in Vermont, though at one time the whole State was considered infested, and scattered egg masses and small colonies occasionally are found in other sections.

SATIN MOTH (Stilpnotia salicis L.)

Washington

Wm. W. Baker (April 16): The larvae of the satin moth have evidently been feeding for several days.



OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Indiana J. J. Davis (April 28): The oyster-shell scale is moderately abundant in the northern half of Indiana. It is very destructive and abundant on ash at LaGrange.

Utah G. F. Knowlton (March 16): The oyster-shell scale is seriously affecting some willow and elm trees on the campus of the Utah State Agricultural College. It is seldom found in damaging numbers on apple, cherry, pear, or plum, in northern Utah, but occurs on a large variety of plants in small numbers.

ELM

EUROPEAN ELM SCALE (Gossyparia spuria Modeer)

North Dakota J. A. Munro (April 25): At Mandan, Bismarck, and Fargo I find the European elm scale fairly common on the elms in the city plantings. This insect was particularly abundant several years ago but practically disappeared until it has again put in its appearance recently.

ELM BORER (Saperda tridentata Oliv.)

Nebraska M. H. Swenk (April 15): Correspondents have again started inquiring concerning the elm borer.

JUNIPER

A WEEVIL (Pachylobius picivorus Germ.)

Mississippi R. W. Harned (April 22): Specimens of the pine bark weevil were recently received from Durant and Kosciusko, where they were collected on juniper plants. The extent of injury caused by these weevils was not mentioned.

JUNIPER WEBWORM (Dichomeris marginellus Fab.)

Ohio E. W. Mendenhall (April 4): I find the juniper stock in one of the nurseries at Painesville (Lake County) badly infested with the juniper webworm. This insect is growing more important on junipers and also is spreading somewhat in its distribution.

OAK

OAK LECANIUM (Lecanium quercifex Fitch)

Alabama J. M. Robinson (April 25): The oak lecanium scale has been attracting attention in various parts of central and southern Alabama.

CARPENTER WORM (Prionoxystus robiniae Peck)

Indiana J. J. Davis (April 28): The carpenter worm is attacking and damaging white oak at Tyner.

CROWN WHITEFLY (Aleurocanthus coronatus Quaint.)

California E. O. Essig (April 21): The crown whitefly was reported at Paso Robles, April 13, as very abundant on Coast live oak.

PINE

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Connecticut M. P. Zappe (April 23): This insect has caused considerable injury to red pine and is apparently more abundant than two years ago.

SOUTHERN PINE WEEVIL (Pissodes nemorensis Germ.)

Mississippi H. Dietrich (April 19): Pissodes nemorensis Germ. emerged from Pinus glabra in Pascagoula swamp (George Co.) previous to April 15.

A WEEVIL (Scythropus sp.)

Washington Wm. W. Baker (April 8): Several of the young yellow pine growing on the prairies south of Tacoma were quite heavily infested with a weevil, apparently Scythropus sp., which was eating the needles, especially on the tips of the twigs.

PINE BARK APHID (Chermes pinicorticis Fitch.)

Ohio E. W. Mendenhall (April 18): An outbreak of the pine bark louse was found at Stoutsville, Fairfield County. The trees are very badly infested, and look as though they were white washed.

PINE LEAF SCALE (Chionaspis pinifoliae Fitch.)

Missouri L. Haseman and P. H. Johnson (April 24): The pine needle scale is abundant over the State. The sleet of last winter removed many at Columbia. Eggs just beginning to hatch.

Nebraska M. H. Swenk (April 1 - April 15): During the period here covered inquiries and complaints concerning the pine leaf scale were resumed.

SPRUCE

SPRUCE BUDWORM (Cacoëcia fumiferana Clem.)

Wisconsin

E. L. Chambers (April 25): The spruce budworm is moderately abundant. Overwintering larvae are plentiful in southern Wisconsin. The budworm is becoming more serious on our evergreens.

INSECTS AFFECTING GREENHOUSE AND  
ORNAMENTAL PLANTS AND LAWNS

A TORTRICID (Tortrix citrana Fern.)

Washington

W. W. Baker (March 10): Adults, pupae, and various stages of larvae and eggs of a small moth were found working on greenhouse plants, including geranium (ivy-leaved geranium, Martha Washington, and others), pelargonium, Acacia mimula, cyclamen, lantana, and fuchsia, in Tacoma, March 3.

RED SPIDER (Tetranychus telarius L.)

Mississippi

C. Hines (April 19): The red spider is very abundant on arborvitae at Yazoo City and Rolling Fork.

J. E. McEvilly (April 18): The red spider is abundant on ornamentals at McComb.

SOFT BROWN SCALE (Coccus hesperidum L.)

Alabama

J. M. Robinson (April 25): The soft brown scale has been reported from Foley, attacking Japanese persimmon, also from Columbia, attacking a banana shrub.

A SCALE INSECT (Saissetia nigra Nietn.)

Ohio

E. W. Mendenhall (April 26): I find Hibiscus cooperii infested in a greenhouse at Painesville, where some damage is being caused.

LONG SOFT SCALE (Coccus elongatus Sign.)

Ohio

E. W. Mendenhall (April 12): An outbreak on cactus in one of the greenhouses in Springfield.

ARBORVITAE

AN APHID (Dilachnus thujaefolia Theob.)

Mississippi

R. W. Harned (April 22): Dilachnus thujaefolia was received from Mendenhall, Corinth, and Picayune, where it was reported as seriously infesting arborvitae plants.

H. Dietrich (April 19): This insect is present on all arborvitae at Lucedale, but coccinellids seem to be keeping them down.

CEDAR

DEODAR WEEVIL (Pissodes deodarae Hopk.)

Mississippi

R. W. Harned (April 22): Complaints in regard to injury caused by weevils belonging to the genus Pissodes to Cedrus deodara plants continue to pour in from all sections of the state. Apparently these insects are attracting a great deal of attention.

WHITE PINE WEEVIL (Pissodes strobi Peck)

Alabama

J. M. Robinson (April 25): The white pine weevil has been active at Tuscaloosa in ornamental shrubs.

FERN

FERN SCALE (Hemichionaspis aspidistrae Sign.)

Mississippi

H. Dietrich (April 19): The fern scale is very bad on ferns in Greene County where the owner had wintered plants in a pit. The scale had evidently multiplied all winter.

IRIS

CRANE FLIES (Tipulidae)

Missouri

K. C. Sullivan (April 23): The crane fly larvae are reported from Jackson County as feeding on iris.

IVY

FLORIDA RED SCALE (Chrysompholus ficus Ashm.)

Indiana

J. J. Davis (March 31): The ivy scale has been reported abundant on Boston ivy at LaPorte.

JASMINE

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Mississippi

R. W. Harned and assistants (April): The citrus whitefly is moderately abundant on cape jasmine and other ornamentals in many parts of the State.



NARCISSUS

LESSER BULB FLY (Eumerus strigatus Fallen)

Oregon J. Wilcox (April 21): The lesser bulb fly began emerging April 14 at Corvallis.

NARCISSUS BULB FLY (Merodon equestris Fab )

Oregon J. Wilcox (April 21): The greater bulb fly began emerging April 17 at Corvallis.

ROSE

POTATO APHID (Illinoia solanifolii Ashm.)

Mississippi R. W. Harned (April 22): Aphids on rose, were received from Meridian on April 2, and from Jackson and Natchez on April 3.

A SCARABAEID (Diplotaxis sp.)

Mississippi R. W. Harned (April 22): Beetles belonging to the genus Diplotaxis were received on April 9 from a correspondent at Lucedale, who wrote as follows regarding them: "They have been working on my rose bushes for the last three years. The first we noticed is that the leaves are eaten off. This is done at night. They are in the ground around the roots."

SPIRAEA

SPIRAEA APHID (Aphis spireacola Patch)

Mississippi R. W. Harned (April 22): Injury to spiraea by Aphis pomi (spireacola) was reported from Kosciusko, Durant, and Meridian.

T. F. McGehee (April 19): Green aphids are very abundant on spiraea bushes in Marshall, La Fayette, and Benton Counties; also aphids are very abundant on spiraea bushes.

C. Hines (April 19): Green aphids are very abundant on rose, spiraea, etc., at Yazoo City and Canton.

H. Dietrich (April 19): Green aphids are very abundant on Rosaceae, persimmons, roses, apple, etc., in George and Perry Counties. Also very abundant at Hattiesburg April 9 on all Rosaceae in garden.

VERONICA

A FLY (Dolichopus ramifir Loew)

Ohio E. W. Mendenhall (April 26): This insect seems to feed on the veronica plants in the greenhouse at Painesville, but I have not ascertained how much damage it is doing. The grower thinks there is some injury.

I N S E C T S   A T T A C K I N G   M A N   A N D  
D O M E S T I C   A N I M A L S

MAN

MOSQUITOES (Culicinae)

North Carolina W. A. Thomas (April 13): In traveling from Chadbourn, N. Car., to Florence, S. Car., it was observed that thousands of dragonflies were operating along the highway over the hard surface, attacking mosquitoes and other insects. In many places these insects were so abundant as almost completely to cover the front of radiators of passing automobiles. Most of their activities seemed to be confined to the area just above the hard surface. In some places the dead bodies of these insects were thickly scattered over the roadway, having been killed by passing motorists.

Mississippi H. Gladney (April 16): Mosquitoes are moderately abundant at Ocean Springs.

F. P. Amsler (April 17): Mosquitoes are moderately abundant in Hancock and Harrison Counties.

Utah G. F. Knowlton (April 10): Mosquitoes are becoming active at Kelton and Kosmo, and a number have been encountered at Logan. (April 23): Mosquito larvae are rather abundant in sloughs west of Corinne.

HOUSE FLY (Musca domestica L.)

Missouri L. Haseman and P. H. Johnson (April 21): The house fly was very abundant by the middle of April.

Mississippi H. Gladney (April 16): The house fly is moderately abundant at Ocean Springs.

A BUFFALO GNAT (Eusimulium sp.)

Mississippi K. L. Cockerham (April 5): These small gnats have been very numerous and annoying for several days. Around dusk a person can hardly remain outdoors.

CLOVER MITE (Bryobia praetiosa Koch)

Delaware

L. A. Stearns (April 11): Infestation is apparently limited to a single property in Dover and to the inside woodwork and windows of the first floor of the house; the outside walls and all shrubs and clover for a distance of 20 feet surrounding the house are infested by thousands of mites. The mites had been entering the house in constantly increasing numbers since the latter part of January.

Wisconsin

E. L. Chambers (April 25): The clover mite is reported very abundant in the vicinity of Whitefish Bay and Milwaukee, crawling about in houses.

Minnesota

A. G. Ruggles (April 17): Many reports of trouble with Bryobia praetiosa bothering the housewives by getting into houses crawling over walls and windows by the millions. It was quite warm early and later turned cold forcing the mites to seek warm places for shelter.

FLEAS (Siphonaptera)

Indiana

J. J. Davis (March 31): Fleas have been reported abundant around the barns for the past year at Monrovia.

Kansas

R. L. Parker (April 23): Fleas are reported at Amsterdam, Mo., in a barn and at Salina, Kans., in a basement.

CATTLE

NORTHERN CATTLE GRUB (Hypoderma bovis DeG.)

Minnesota

A. G. Ruggles (April 17): A report from the Extension Division shows that ox warbles are very common around Plainview, Wabasha County. Of 12 farms visited all were having trouble. One steer had 22 mature larvae.

J. A. Salisbury (April 24): Ox warbles are emerging in moderate abundance in Kittson County.

L. Uptograph (April 23): Grubs on cattle are abundant in Houston County.

HORN FLY (Haematobia irritans L.)

Missouri

L. Haseman and P. H. Johnson (April 21): April 14, the horn flies on cattle were more abundant than usual.

POULTRY

BLACK FLIES (Simuliidae)

Indiana

J. J. Davis (April 28): One of the black flies was reported very abundant and troublesome to poultry at Cromwell April 19.

HOUSEHOLD AND STORED -

PRODUCT INSECTS

TERMITES (Reticulitermes spp.)

- North Carolina C. H. Brannon (April 24): The County agent of Wayne County writes, "There has been considerable excitement here the last few days because of the damage to residences by termites."
- Georgia J. B. Gill (April 25): Termites have caused serious damage to the building of the public library at Albany, and have also eaten into some bound books, making them unfit for further use.
- Indiana J. J. Davis (March 31): Termites were reported damaging woodwork of dwellings at Shelbyville, Linden, and Anderson. (April 28): Termites are reported abundant at Terre Haute, La Fayette, and Williamsport. The winged migrants were abundant during April.
- Illinois S. C. Chandler (April 15): A number of reports have been sent in concerning termite swarms in houses and several cases of severe damage, one to a house built less than three years ago, have been reported.
- Alabama J. M. Robinson (April 21): Termites are reported to be in Fort Payne, Montgomery, and Anniston.
- Nebraska M. H. Swenk (April 15): Several new cases of infestations of houses with the termite Reticulitermes tibialis Bks. were received during the period here covered, from Plattsmouth and Kearney, the situation in the latter city having developed to serious proportions.
- Kansas R. L. Parker (April 23): Termites are reported in Chanute, LaCyne, Jamestown, Clay Center, Otis, Hay, Manhattan, New Albany, Sabetha, Goodrich, Beloit, and Wilson in houses, hospitals, and other buildings.
- Mississippi R. W. Harned (April 22): Many complaints have been received recently in regard to termites. The emergence of winged forms has attracted much attention.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

- Mississippi R. W. Harned and assistants (April): The poisoning campaign in 1929 has very materially reduced this insect at McComb.
- M. R. Smith (April 20): A colony of Argentine ants was found nesting in a rotten root of a tree at Cedar Bluff along with a termite colony. This incident is mentioned because there is an erroneous impression among some people in Mississippi



that the Argentine ant is predacious on termites, and also on cotton boll weevils. Our observations so far have failed to confirm either of these ideas. Argentine ant male and female pupae were found in a nest on April 19 at Columbus. These are the first sexed pupae found this spring. That the Argentine ants move their colonies in the spring has been clearly brought out in several cases at Columbus, where colonies that were located in certain spots six weeks ago can not be found there on April 19. Inspector J. P. Kislanko has thoroughly scouted the original area infested by the Argentine ant at Wiggins, but has been unable to find any trace of Argentine ants there. He reports that many native species are now occupying the area. Mr. G. W. Haug has found several workers of Strumigenys pulchella Emery in the nest of Argentine ants at Ackerman.

FIRE ANT (Solenopsis geminata Fab.)

Mississippi J. E. McEvilly (April 18): Fire ants are abundant in dwellings at McComb.

R. B. Deen (April 11): Fire ants are very abundant in flower beds at Union, Lee, Itawamba, and Pontotoc Counties.

ANTS (Formicidae)

Indiana J. J. Davis (April 28): House ants were reported troublesome from Bloomington, Logansport, and Seymour. Also abundant in lawns at La Fayette and Bloomington.

Mississippi M. R. Smith (April 20): Mr. R. M. Lancaster, County Agent, recently brought to us from Maben some ants which were falling into a well in such numbers as to cause the water to both taste and smell bad. The ants proved to be one of the legionary ants, Eciton pilosus Smith. This species is highly carnivorous. The food of the ants consists largely of termites and the immature and mature stages of many ants.

Nebraska M. H. Swenk (April 15): As usual during early April, there have been many complaints of injury in lawns and annoyance in houses by black ants, Formica fusca L.

Kansas R. L. Parker (April 20): Lasius interjectus Mayr is reported in Olathe in a house (basement).

Nebraska M. H. Swenk (April 15): As usual during early April, there have been many complaints of injury in lawns and annoyance in houses by the common large carpenter ant Camponotus herculeanus pennsylvanicus DeG.

A BEE (Ceratina sp.)

Washington

Wm. W. Baker (April 15): Adults, apparently some species of Ceratina were sent in from Winlock, stated to have emerged from the inside walls of a dwelling house; also reported to be working in the shingle siding.

ORIENTAL COCKROACH (Blatta orientalis L.)

Kansas

R. L. Parker (April 23): Black cockroaches are reported to be in Hutchinson, Abilene, and Wichita in houses.

SILVERFISH (Lepisma saccharina L.)

Indiana

J. J. Davis (April 28): The silverfish was reported abundant and infesting a medical clinic at Garrett.

Kansas

R. L. Parker (April 23): The silverfish is reported at Wichita in curtains.

FIRE BRAT (Thermobia domestica Pack.)

Nebraska

M. H. Swenk (April 15): The fire brat, infesting apartments in a town in Nemaha County, was one of the household pests complained of during the first half of April.

WEBBING CLOTHES MOTH (Tineola biselliella Hum.)  
CASE-BEARING CLOTHES MOTH (Tinea pellionella L.)

New York

Wm. Moore (April 22): These parasites were bred from the webbing clothes moth, collected in Yonkers, in an unheated storage plant, February 12. This same species was taken about January, 1929, in Chappaqua, in an unheated room. In this case it was bred from both species of clothes moth. (Determined by R. A. Cushman as Apanteles carpatas Say).

MEDITERRANEAN FLOUR MOTH (Ephestia kuehniella Zell.)

Utah

G. F. Knowlton (April 10): The Mediterranean flour moth is causing damage in a stored food plant at Logan.

POWDER POST BEETLES (Lyctus planicollis Lec.)

Alabama

J. M. Robinson (April 25): Powder post beetles were reported attacking an oak dining-room table in Mobile.

LARDER BEETLE (Dermetes lardarius L.)

Kentucky

W. A. Price (April 25): Larder beetles are plentiful in smokehouses at Versailles.

Indiana

J. J. Davis (April 28): The larder beetle was sent in from Shelbyville April 11 with report that it was seriously attacking cured meats.



### DRUG-STORE WEEVIL (Sitodrepa panicea L.)

Washington

S. E. Crumb (April 11): Larvae were fairly numerous beneath wall paper in a house at Puyallup. The exit holes of the beetles had so marred the paper over the whole house that the paper was being removed.

### TOBACCO BEETLE (Lasioderma serricorne Fab.)

Nebraska

M. H. Swenk (April 15): The tobacco beetle in stuffed furniture in dwellings in Jefferson and Gage Counties was one of the household pests complained of during the first half of April.

### CARPET BEETLE (Anthrenus scrophulariae L.)

Indiana

J. J. Davis (April 28): The carpet beetle was reported damaging a mohair living room suite at Fort Wayne.

Kansas

R. L. Parker (April 23): The carpet beetles are reported in Lincoln in woolen goods and feathers.

### A NITIDULID (Carpophilus antiquus Melsh.)

Alabama

J. M. Robinson (April 25): Some nitidulid larvae were developing in cotton seed at Notasulga. The adults proved to be Carpophilus antiquus.

### WHITE-MARKED SPIDER BEETLE (Ptinus fur L.)

Kansas

R. L. Parker (April 23): The spider beetle is reported at Chanute in a house.

### PEA WEEVIL (Mylabris pisorum L.)

Wisconsin

E. L. Chambers (April 25): The usual number of requests for the control of pea weevils have been received.

Utah

G. F. Knowlton and M. Janes (April 3): Pea weevils are damaging seed peas at Providence.

### CADELLE (Tenebroides mauritanicus L.)

Indiana

J. J. Davis (April 28): Cadelle larvae are attacking seed corn in storage at Richmond.

### BEAN WEEVIL (Mylabris obtectus Say)

Wisconsin

E. L. Chambers (April 25): The usual number of requests for the control of bean weevils have been received.